

IN THE CLAIMS:

Please amend claims 1, 18, 25, and 31 as follows:

1. (Currently Amended) An automated video production system for online publishing of a lecture, comprising:

a camera system that provides multiple camera views of the lecture in a real-world lecture environment, wherein the camera system includes a lecturer-tracking camera that provides a camera view of a lecturer;

a history-based, reduced-motion tracker that controls the lecturer-tracking camera in tracking the lecturer based on a history of the lecturer's movement;

a set of expert video production rules that are probabilistic rules used by human video professionals in a video production field, the expert video production rules being weighted such that a first rule of the expert video production rules has greater weight as compared to a second rule of the expert video production rules, so that if the first rule and the second rule conflict the first rule is used and the second rule is discarded since the first rule has a greater weight than the second rule; and

a virtual director that uses probabilistic rules the set of expert video production rules to select a current camera view from the multiple camera views and is capable of changing the current camera view by switching between the multiple camera views in response to a triggering event; ~~and~~

~~a set of expert video production rules that is applied by the virtual director to select the current camera view.~~

2. (Original) The automated video production system as set forth in claim 1, wherein the set of expert video production rules is applied by the virtual director to determine to which of the multiple camera views to switch.

3. (Previously Presented) The automated video production system as set forth in claim 1, wherein the set of expert video production rules are applied by the virtual director to generate the triggering event and determine when to switch the current camera view.

4. (Original) The automated video production system as set forth in claim 1, wherein the camera system includes a single camera.

5. (Original) The automated video production system as set forth in claim 1, wherein the camera system includes a plurality of cameras.

6. (Original) The automated video production system as set forth in claim 1, further comprising a virtual cinematographer that controls a camera in tracking an object within the lecture.

7. (Original) The automated video production system as set forth in claim 1, wherein the camera system includes an audience-tracking camera that provides a camera view of an audience.

8. (Original) The automated video production system as set forth in claim 7, further comprising a microphone-array audience tracker that controls the audience-tracking camera in tracking a member of the audience.

9. (Original) The automated video production system as set forth in claim 7, further comprising an audience-tracking status module that provides status information of the audience-tracking camera to the virtual director.

10. (Original) The automated video production system as set forth in claim 9, wherein the status information includes a plurality of possible statuses.

11. (Canceled)

12. (Canceled)

13. (Previously Presented) The automated video production system as set forth in claim 1, further comprising a lecturer-tracking status module that provides status information of the lecturer-tracking camera to the virtual director.

14. (Original) The automated video production system as set forth in claim 1, wherein the virtual director includes an event generator that generates the triggering event.

15. (Original) The automated video production system as set forth in claim 14, wherein the event generator further comprises a time transition module that determines when to switch the current camera view.

16. (Original) The automated video production system as set forth in claim 14, wherein the event generator further comprises a location transition module that determines to which of the multiple camera views to switch.

17. (Original) The automated video production system as set forth in claim 16, wherein the location transition module is a probabilistic finite state machine having multiple states.

18. (Currently Amended) A method for automatically producing a video of a lecture for online publishing, comprising:

providing a set of expert video production rules that are probabilistic rules used by human video professionals in a video production field;

weighting the expert video production rules such that a first rule of the expert video production rules has greater weight as compared to a second rule of the expert video production rules, so that if the first rule and the second rule conflict the first rule is used and the second rule is discarded since the first rule has a greater weight than the second rule;

capturing the lecture in a real-world lecture environment using a camera system that includes multiple camera views, wherein the camera system includes a lecturer-tracking camera;

tracking the lecturer based on a history of the lecturer's movement using a history-based, reduced-motion tracker; and

receiving as input audio and video tracking results and using the set of expert video production rules and a finite state machine to automatically determine a current camera view from the multiple camera views, when the current camera view should change, and to which of the multiple camera views the current camera view should change based on a probabilistic approach that uses a probabilistic transition matrix constricted by the expert video production rules such that a next current camera view is a weighted random choice.

19. (Previously Presented) A computer-readable medium having stored therein computer-executable instructions that, when executed by the computer, perform the method recited in claim 18.

20. (Original) The method as set forth in claim 18, wherein the set of expert video production rules are a set of constraints for producing the video.

21. (Original) The method as set forth in claim 18, wherein the set of expert video production rules is obtained by determining rules used by human experts in a video production field.

22. (Original) The method as set forth in claim 18, wherein the current camera view is changed in response to a triggering event.

23. (Original) The method as set forth in claim 22, wherein the triggering event is generated based on the set of expert video production rules.

24. (Canceled)

25. (Currently Amended) The method as set forth in claim 18, wherein the probabilistic approach uses a the probabilistic finite state machine having multiple states

that are fully connected to allow transition from one state to another.

26. (Original) The method as set forth in claim 18, wherein the camera system includes an audience-tracking camera that provides a camera view of an audience of the lecture.

27. (Original) The method as set forth in claim 26, further comprising using the set of expert video production rules to control the audience-tracking camera in tracking members of the audience.

28. (Canceled)

29. (Previously Presented) The method as set forth in claim 18, wherein the lecturer-tracking camera tracks the lecturer using the set of expert video production rules.

30. (Canceled)

31. (Currently Amended) An automated video production system for capturing images of a real-world scene, comprising:

- an audience-tracking camera that provides images of an audience within the real-world scene;

- a lecturer-tracking camera that non-intrusively tracks a lecturer within the real-world scene;

- a history-based, reduced-motion tracker that controls the lecturer-tracking camera in tracking the lecturer based on a history of the lecturer's movement;

- a set of expert video production rules containing video production constraints; and

- a virtual director module ~~that receives multiple camera views using a probabilistic finite state machine and receiving as input audio and video tracking results~~ from the audience-tracking camera and the lecturer-tracking camera and use using the

set of expert video production rules and probabilistic rules to automatically select a current camera view from the multiple camera views in a real-world environment such that the current camera view is a weighted random choice.

32. (Original) The automated video production system as set forth in claim 31, further comprising an overview camera that provides an overview image of the scene.

33. (Original) The automated video production system as set forth in claim 31, wherein the current camera view is capable of changing to one of the multiple camera views in response to a triggering event.

34. (Original) The automated video production system as set forth in claim 33, wherein the set of expert video production rules is used to determine when the triggering event is generated.